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BY THE HOUSE OF DELEGATES,
MARCH 23d, 1865.

Read and 8,000 copies in English and 2,000 in German ordered to be printed.

REPORT

OF THE

SELECT COMMITTEE

APPOINTED TO

PREPARE A STATEMENT

IN RELATION TO THE

RESOURCES OF MARYLAND.

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REPORT.

To the House of Delegates of Maryland:

The Select committee appointed by the Speaker of this House, under the order adopted by the House on the 13th of January, respectfully

REPORT:

That the order adopted by the House was as follows:

"Ordered, That a committee of seven be appointed by the Speaker, whose duty it shall be to prepare or have prepared a succinct statement of the soil in different sections of this State, and of its peculiar adaptation to the various productions of agriculture, the proximity to market, the course and capacity of our navigable streams, the water powers and facilities and material for manufactories, and the mineral resources and description of the country; that in the execution of these duties they have power to avail themselves of any assistance they may require; that said committee report to this House, at as early a day as practicable the result of their labors, said report to be printed in English and German, for extensive circulation throughout the Northern and Western States."

Under this order the committee, as soon as practicable after its adoption, placed themselves in communication with gentlemen of intelligence, and upon whose statements full reliance could be placed, in various parts of the State. It was their wish and earnest effort to make the statement which they might issue perfectly authentic, to raise no expectations which the result would not fully justify.

They have of course experieneed many difficulties and embarrassments, and upon some points would desire opportunity for still further inquiry and investigation if the duration of the session of the House permitted it. In such cases, if serious doubt remained, they have preferred to pass over the subject rather than to be inaccurate in their statements.

From the great mass of information placed in their hands they have caused the subjoined statement to be compiled, omitting nothing of real importance, yet condensing everything to the smallest possible compass, and repeating general facts known to everybody only so far as seemed necessary to illustrate the topic immediately in hand.

JOSEPH HARRIS, *Chairman.*

RESOURCES OF MARYLAND.

The State of Maryland has just effected one of those great, though peaceful, revolutions, which divide the world's history into epochs. On the 1st of November, 1864, more than eighty-five thousand persons, who were born, and had passed all their lives till that day as slaves, became free. The persons thus emancipated constituted a large portion of the agricultural labor of the State; and the Act of Emancipation, in addition to all minor changes, thus necessarily involved the great economical question of the system of labor, and all the important results dependent upon the labor of the State.

Nor, did this change stand alone. The same Constitution which made Maryland free, established also a system of free public instruction for all.

With the adoption of these radical changes in her institutions, at once the cause and the effect of the changes themselves, is manifest a new spirit and purpose and tendency among the people.

It was not of course to be expected that the work of a day could obliterate the attachments, the aversions, the habits of a century. At the same time, among those who most earnestly deprecated the changes that have occurred, and most zealously strove to prevent them, are found many who most cheerfully accept the change as a thing accomplished, and will give their best efforts to make the future prosperous and happy.

The feeling is wide spread that the state of society must undergo changes as great as the system of labor has undergone; and that, to a greater or less extent, its tone is to be modified—not to say controlled by the great producing class of the population. And the people of the State look therefore with most intense interest to the progress of events, and the developments which shall determine the direction of the restless tide of migration in our land. The time has gone past when the people of the State preferred that it should flow past them. They now earnestly desire that it should bring no stinted measure of its burden to their doors. In former times there was too much reason for the feeling, often expressed by immigrants, especially from the North, that

they were regarded and treated as intruders—suspicious characters to be watched. But those times have passed, and now whoever comes bringing either capital or labor, to build his home among us, receives *a most cordial welcome.* We do not know the term "social toleration" which has sometimes been used in this connection, but our people accord consideration and welcome to all who come to cast their lot with them and be of them.

The farmers of Maryland have never been believers in the doctrine that "ten acres" was "enough," but, on the contrary, have been disposed, however large their farms or "plantations," to add to them all the land that joined them, so that, in parts of the State the lands are held in larger bodies than can be profitably conducted, and the owners have no reluctance to dispose of parts of them; and tracts suitable for desirable farms can readily be bought at reasonable prices. Already considerable quantities have changed hands, probably not less than a hundred thousand acres within the last four months, and indications are not wanting, that with the opening spring, the demand for lands for actual settlers will be far larger than ever before.

The State has an area of about 9,500 square miles of land, while the Chesapeake Bay covers more than 4,000 more; and these last are a most important element in the resources of the State, for they are productive of food beyond much of the cultivated land upon our continent, and at the same time they afford unrivaled facilities of transportation for the thousands of acres of market gardens which deck the shores of this bay, and its numerous and prolific estuaries. So frequent are these estuaries and navigable arms of the bay, that there are large counties bordering on the bay no point of which is more than four miles from a good "landing." This enables the inhabitants of those counties, whenever disposed, to raise for the markets of Baltimore, Washington, Philadelphia and New York, all the more delicate fruits and vegetables—such as are ruined by any considerable amount of land carriage. Two hundred miles of this bay from the place of consumption of these products is practically less remote from the market than ten miles by ordinary roads. This great advantage is shared by all of the shore counties of the bay, and those which are penetrated by its arms, for though the actual *sea coast* of Maryland is but little over thirty miles, the tide water margin is over 400 miles and if the islands be included over 500 miles. The largest vessels which float ascend the bay, past St. Mary's, Calvert and Anne Arundel counties to Annapolis—and the Potomac river past St. Mary's, Charles and Prince Georges' counties to Washington. Smaller craft, ranging up to about 250 tons, ascend the rivers according to their respective capacities and the requirements of the peo-

ple; the Choptank and its tributaries for 40 miles, the Nanticoke to the Delaware line, the Patuxent for about 75 miles, and not less than fifty others are navigable to a greater or less extent.

The bay is so nearly land-locked, the outlet between Capes Charles and Henry being but fifteen miles wide, that navigation is neither difficult nor dangerous, and it has long been customary for persons having bay residences or farms to have their yacht, pungy or schooner for pleasure or for the transportation of their products. These with the aid of their farm hands they can load at their own doors, navigate to the best markets in the country, and return with manures or supplies for their farms, family or neighborhood.

An almost universal adjunct of every shore farm also is its oyster beds, from which at almost any hour in the year may be taken an unlimited supply of the most delicious bivalves which the world produces. Fish in abundance and of excellent quality are also caught at all points for home consumption. Nor is all the richness of this bay drawn from beneath its waters. The numerous flocks of wild ducks, which frequent its surface and breed in its islands and marshes not less than the abundance and flavor of its oysters, its terrapins and crabs, have given a fame to the bay as wide as the country. Its canvass back ducks are the pride of the New York restaurants, and the hermetically sealed fruits and oysters of Baltimore alone, annually amount to $5,000,000. Nor is this to be estimated as the capacity of the Chesapeake, but rather as a measure of the size of the market.

It would be unfair to leave this subject without mention of the beauty of the Chesapeake. A sail upon its waters is never tiresome. Its half built forts, its quaint white lighthouses on the shore, interspersed with iron ones rising from the midst of the waves, the continual whirling and plunging of the huge flocks of wild ducks which never desert its waters, the constantly varying outline of its jagged shores, dotted by dark lines of forest with here and there a handsome homestead; the flitting white sailed schooners, the clusters of oyster boats, the hurried dash of the miniature steamers, all these joined to the balmy airs that love to linger on the Chesapeake, combine to make it one of the most beautiful bodies of water in the world.

Geographically, Maryland is divided into three sections, two of which, parted by the Chesapeake, are similar in formation, while the third is marked by the ledge of primitive rocks which runs from the left bank of the Potomac, in Montgomery county, N. E. to the Susquehanna river.

The soil of the plain, or tide-water district, as it is called embraces nearly one-half of the territory of the State.

This great region (for it stretches through Delaware and along the coast of New Jersey, and is supposed to have formed the bed of an ancient ocean) is composed of strata of the tertiary formation—proven by the fossils found in its cliffs and banks. The chalk or cretaceous formation, similarly indicated in New Jersey and Carolina, probably underlying more recent deposits—throughout the extent of Maryland.

In this tertiary formation Maryland is rich in deposits of wealth for the farmer ; beds of marl, of shell lime, of eocene or green sand being distributed throughout its entire extent.

The surface of this tide-water district is level, save in the northern part, and but slightly elevated above the sea, and its soils are above the average in their adaptation to agriculture.

The forest growths are mostly, oaks of various kinds, hickory, chestnut, walnut, gum, cedar, pine and beech. Few rocks are found, but some of the mineral deposits are rare. The chromes, corundum or emery, and the tripoli, being almost the sole deposits of the kind in the civilized world. Bog iron ore is found, and also, aluminous and magnesian salts. The clays, which have never been developed by experienced artisans, are known to embrace the kaolin or porcelain clay, and the grey, red and blue clays, which have already contributed to our mechanic arts, in potteries of stone-ware, queensware, glazed red-ware and bricks. From the pure sands glass has been manufactured in considerable quantities, but hitherto its manufacture has been carried to no great perfection. Red ochre, the cheapest material for common painting, forms subordinate beds in the lower clays, and is ground to a fine powder in great quantities for the markets. Oyster-shell lime is produced in large quantities by calcining the shells of the oysters annually harvested, and also from deposits of shells found upon the banks of our tide-water rivers and creeks. These deposits are known by the name of *Indian* shells; which people seem to have made abundant meals upon the oysters, if we are to measure them by the quantity of shells remaining. These deposits are so far decomposed that they can be applied to the soil without burning or sifting. The recent oyster shells are also of great service in making roads, for when broken and ground in their natural state upon the high way, the surface becomes as hard and smooth as a macadamized road, and is very durable.

The grains most largely cultivated in this plain are wheat, Indian corn and tobacco, with cotton in the lower part.

Having premised these few statistics common to both the Eastern and Western Shore, we will now proceed to consider some characteristic features which distinguish the first geographical section, or,

EASTERN SHORE.

The Eastern Shore, proceeding in order from the south, embraces the counties of Worcester, Somerset, Dorchester, Talbot, Caroline, Queen Anne's Kent and Cecil. The Atlantic coast of this "shore" has no harbors, and is bordered throughout by a sandy beach, from a few yards to more than a fourth of a mile in breadth, enclosing a shallow lagoon, which now, owing to the blocking up of several passages by which it formerly communicated with the sea, may almost be termed a bay or lake. The surface of the Eastern Shore, which forms part of the Peninsula lying between the Chesapeake and Delaware bays is low and level, except in the northern part, where it is somewhat broken and hilly. The soil is generally sandy. A variety of soil denominated "white oak" soil, may be distinguished by the color of its sand, which is white, very fine, feeling but slightly gritty, of compact texture, with great retentiveness of moisture. It is usually good corn land.

The soils of the Eastern Shore, except the sand plains, were originally among the most fertile in the country. A long course of improvident agriculture sadly impaired their productive value. Improved systems of farming have, however, restored the fertility of large portions of it, and demonstrated the possibility of a complete restoration of the whole.

The crops of the Eastern Shore vary, according to their access to market. On the bay and river shores are large farms, devoted to the production of "truck," a term applied generally to the perishable products designed for the city markets. As has been already intimated, their transportation by water is infinitely preferable to land carriage and fruits and vegetables thus transported have a finer appearance, can be longer preserved, and consequently command better prices than those which come by wagons. Not only is it exempt from the dust and bruises incident to land transportation, but the moist, cool air of the bay preserves its freshness, and in many instances it is actually better when it reaches the market than when taken from the tree or vine. Steam power may be employed, *ad libitum*, to secure the benefit of prompt and regular transportation. In many instances heretofore a single producer has found it to his interest to own and run his own vessel—steam or sailing—for the transportation of his own products; and no obstacle whatever can exist, no inconvenience arise, from a neighborhood arrangement, by which a few smaller producers should unite, and the produce of their adjoining farms, together find transportafion to their common market. It can hardly be doubted that under the

new and more self-reliant system of labor such arrangements will become almost universal.

In the portions removed from tide-water, the cereals, wheat, corn &c., are the staple products. In the southern portion, flax and cotton (and upon the whole "Shore" wool) to a limited amount have always been raised. This is done chiefly for home consumption, and only about in sufficient quantities to meet the wants of the people. The cotton is ginned with the fingers, carded with the hand cards—so generally obsolete in the *active* world—and spun by hand, all in the most primitive manner.

The draught labor of the farms is performed by mules, horses and oxen; the mule here, as everywhere, being found most hardy, capable of performing great labor, and of being kept more economically than any other animal performing the same amount of labor. The prevailing breeds of both horses and oxen are diminutive in size but very active, and are believed by intelligent residents to do more work and last longer than the heavier and stronger animals sometimes brought there from more northern States. The little oxen are seldom used for plowing, but for the general hauling of a farm are very valuable. They are gentle and easily controlled, and their customary gait is a sort of dog trot, into which the heavy draught oxen used in other parts of our country could be forced only with great difficulty.

The soil and surface combine to render the labor of road making very slight, and probably no part of the country has so good roads at so little expense. The chief drawback in that respect hitherto has been the numerous creeks and streams that intersect the whole region, and which hitherto have not been provided with any suitable ferries or bridges, so that a long storm at any season would lay an embargo upon travel by the ordinary and shortest routes from point to point. This difficulty of course may easily be removed.

The custom in hiring labor, both male and female, has been to make annual contracts during the christmas holydays for the ensuing year. No obstacle however exists to such change of custom as the new system of labor may require, and the convenience of employer and employed will of course control the future.

No where are melons and sweet potatoes raised in greater perfection than in the sandy portion of the Eastern Shore, when those sands have been enriched by the abundant marls of the same region. This application at the same time increases the crop, and so improves it that they readily command from a half dollar to a dollar a barrel more than those not so produced. Lime is also used with the happiest effect upon these soils, and its free use, coupled with improved gen-

eral culture and drainage, have greatly improved the healthfulness of the whole region. Chills and fevers, formerly common, have almost disappeared, save in limited malarious districts; and these not more numerous or extensive than in most regions under the same degree of cultivation. There has been very little scientific attention hitherto to the subject of manures, and besides what I have named above and the plowing in of clover, or similar crops to a limited extent, but little manure has been used. The grand manure mine, the hog pen, has been almost unknown, and the swine that have been raised have been permitted to roam at large in the forests and swamps; a nuisance so great and a crop so small that many farmers have preferred to buy their bacon rather than to raise and catch it.

Numerous and extensive beds of green shell marl are found and though used to a limited extent, their value has never been fully improved. In the judgment of scientific men it is pronounced superior to the green sand of New Jersey, and that is so highly prized by the farmers of that State and of Pennsylvania, that it is extensively used at places so remote from the beds where it is found, as to cost the consumer twenty-five cents a bushel. When a trade shall be opened up in this, so extensive as to justify the use of steam excavators, with suitable appliances, and transportation by water, it might profitably be furnished at a fourth of that sum, and bring wealth both to consumer and producer.

There are several "Gum Swamps" of considerable extent which have never produced any thing of more value than gum trees for fuel. This tree, the Nyssa multiflora, is the same that is known in the north as the pepperidge, and northern men will readily understand the character of the soil from which it springs. In the swamp and marshes, asparagus grows wild in great quantities and considerable perfection, and in the fields tomatoes are equally indigenous.

In the northern part of Worcester county and extending across into Delaware, is a high table land known as the "Cypress Swamp," far the most extensive of the swamps of the State. It has an area of about 50,000 acres, and has been comparatively worthless. The cypress timber has from time to time been cut off by the manufacturers of *cedar* ware, but no other use has been made of the land, which has been regarded as a worthless quaking morass. Of late years many fields have been redeemed from the margin of the waste, developing an underlying soil of surpassing richness and fertility. Being the highest land upon the Eastern Shore, the source of the Pocomoke river, and numerous smaller streams which flow into the St. Martin's river and Sinepuxent bay, the feasiblity of draining and redeeming the whole swamp

cannot admit of a doubt. The work is a great one, but not too large for science and enterprise to undertake; and if the accomplishment of the work should enhance the value of the lands but five dollars an acre it would repay the expenditure of a quarter of a million of dollars.

Let improved farming implements take the place of those brought over by the early colonists, and skill and care direct their use; the land be fed by scientific manuring instead of being turned out to fallow two years in five, and not only will two blades of grass grow where one grew before, but it will create a necessity for more and better craft to sail up its rivers and bring the products of its wide and teeming gardens to the markets of all the Atlantic cities.

No surface is better adapted for the construction of railroads, and the same necessity will extend the Delaware road to the limits of Virginia, with paying branches to every considerable town upon the Eastern Shore.

WORCESTER COUNTY.

Worcester county, the southermost county of the Eastern Shore, extends along the Atlantic coast, from Delaware to Virginia, the State lines of which form its boundaries North and South, while Somerset county bounds it on the West.

This county is one of the largest in the State but contains much waste land at present unfit for any agricultural purposes. The Cypress Swamp in the North occupies as has been already remarked an area of 50,000 acres, and is the source of many streams. It is a high and level basin, very wet though undoubtedly the highest land between the sea and the Chesapeake bay. It might be reclaimed by a systematic drainage, and would greatly augment the wealth of the county. The experiments upon portions of its soil which have been drained and planted, amply demonstrate its unsurpassed fertility. It is in this morass that the Pocomoke river takes its rise, and from thence it flows southward receiving the whole drainage of the middle portions of the county. There are also many other outlets to this swamp, which flow eastward, and pour their waters into St. Martin's river or estuary, on the Atlantic shore.

The Atlantic coast of Worcester county, is a long narrow sand beach from a few yards to one-fourth of a mile in width inclosing a shallow bay, which is accessable only to small water craft. This bay is more prolific in wild duck and oysters than any other water in this country. It is known in Maryland by the name of Sinepuxent bay, but on the Virginia coast, near

the inlet, which connects it with the ocean, it bears the same name as the inlet, and is there called Chincoteaque bay.

The prevailing soil of Worcester county is sandy, mixed with red and white clay. Black "Gum Swamps," are frequent, and afford rich pasturage. In numerous localities, bog iron ore is found in irregular beds, varying from six inches to two feet in thickness, lying just under the surface of the bog or marsh. It is found by probing the ground with iron bars, which sink in the muck, but cannot penetrate the ore. This ore is seldom smelted alone, because of the phosphoric acid it contains, but judiciously mixed with other kinds, the fusibility is increased, and also the smoothness of the castings. The ore contains from 30 to 35 per cent of iron.

Besides the ample supplies of marsh-muck and peat, this county has a large supply of oyster shell lime suitable for agricultural purposes. The "Indian shells" as they are termed, are found in deposits covering an extent of from one to 40 acres, with a depth varying from six inches to as many feet. They are always near the waters edge, on the slope of a hill, and from long exposure to atmospheric influence have become so far disintegrated that they crumble readily, on free exposure to the air, and are in fit condition to apply to the soil without burning or grinding. In many cases these banks are covered with the most luxurious vegetation, and support large trees. From the frequency and abundance of these shell deposits, we may safely conclude that the Indians appreciated an oyster supper as highly as his white brothers.

The average price of good land in this county is $25.00 per acre. Wood land $50.00, according to location. Worn-out lands from $8.00 to $10.00 per acre, and the average size of farms has been about 200 acres. Some parts of the county are subject to chills, but not more so than any tract of land in Maryland and Virginia where uncultivated swampy districts occur.

There is water power throughout the county, improved only with grist and saw mills. The manufactures are exclusively for home consumption. The productions are corn, wheat, oats, beans, peas, sweet potatoes, flax and cotton. The sandy soil, and the equable sea air, make the cultivation of sweet potatoes a most profitable employment. Those harvested here, are very generally sold under the name of "Carolina potatoes," and command the best prices in market.

The cultivation of fruit as a separate pursuit has recently

begun, and is attended with marked success. The grape grows to great perfection, and is entirely free from the blight, while the mildness of the winters will permit the cultivation in the open air, of many choice table grapes, which cannot endure the winters farther north. Strawberries, which are very prolific in the sandy soils, can be ripened for market *ten days* earlier than in the more northern counties, or on the Delaware coast.

Many farmers have flocks of sheep, which require but little attention, and suffice for all the woollen clothing, which is spun, woven and dyed in each family. The same is true of cotton and flax.

The trade in fish and oysters is extensive.

The climate is salubrious, the winters short and mild, and the proximity of the ocean ensures sea breezes which make the summers very agreeable.

Near Berlin, sands are found, which are identical with those in England from which the Bristol bricks are made.

The Pocomoke river, passing nearly midway through the county, and navigable as far as Snow Hill, affords good facilities for the transportation of the produce of the county to market. Much time cannot elapse before the extension of the Delaware railroad will afford it also the advantage of an unbroken steam communication with Philadelphia.

SOMERSET COUNTY.

Somerset county, which lies between Worcester county and the Chesapeake bay, is separated in part from Worcester county by the Pocomoke river. The Nanticoke river separates it from Dorchester county on the northwest, while the northern boundary is the State of Delaware, and the Southern and Western boundaries are completed by the Chesapeake.

Beside the two rivers which border it, it is watered by the Wicomico and Monie creeks, the Manokin, Annemesix and Little Annemesix rivers. The Wycomico and Monie creeks fall into Fishing bay through a common estuary. The Nanticoke falls into the upper head of Fishing bay, and the other rivers enter the Chesapeake direct. All these rivers are navigable more or less, and afford commercial facilities to their localities.

The upper or northern portion of the county has a soil of light sandy loam, with occasional glades of meadow and marsh. The middle of the county is a mixture of sand and

clay, sometimes approaching to red clay, except near the water courses, where the land is flat and sandy, especially on the salt water. The lower section of the county is a stiff clay soil, well adapted to the growth of corn and wheat, and if cultivated would produce the finest grass.

The water of the uplands is pure, like that of all siliceous soils; and in the lowlands it is calcareous.

The fruits and vegetables which require sandy soils and moist air, can nowhere be cultivated with more profit and pleasure than in Somerset and the adjoining counties. The mixed, disintegrated character of the soil, renders it susceptible of improvement to a high degree. Melons, strawberries, cantelupes, peaches and grapes, may be cultivated for the markets, with greater certainty of perfection and remuneration then in any other localities in the State. The fruits will ripen earlier than in the upper counties, while the tender varieties, which are more or less injured by hard winters elsewhere, are protected here by the adjacent salt waters of the bay and ocean.

The location of Somerset and Worcester counties between two large bodies of salt water, tempers the heats of summer with the ever recurring sea breezes, and so far softens the rigors of winter that plants "are not materially affected by frost."

Sweet potatoes of the best quality are grown in this county. They yield in remarkable abundance. As far back as 1850, 120,000 bushels being the annual crop. Wine is manufactured for domestic use from the wild grape. Indian corn and wheat are the principal grains.

The average price of cultivated lands, according to location, improvements and quality, ranges from $10 to $30 per acre. Wood land the same price. Farms are of all sizes, from 1500 acres to 40 or 50.

The county is not subject to chills and fevers to any considerable extent. The water power of the county is not used to one-fourth of its extent. Bog iron ore is found in the upper and middle parts of the county, but is not worked.

Banks of "Indian shells" or oyster-lime are abundant, and the marsh muck, which is remarkable for its black color, light porous texture, and large amount of vegetable matter, as well as sea-weed and turf, are employed as fertilizers.

DORCHESTER COUNTY.

Dorchester county occupies a peninsula lying between the Choptank and Nanticoke rivers, and extends from the Dela-

ware State line to Chesapeake bay. Almost surrounded by navigable streams, and drained by the Chica-ma-comico, the Transquakin and Black water rivers, and Marshy Hope creek, it possesses unusual facilities for the transportation of its products.

The soil is variable, partaking of the same character which marks the entire Eastern Shore. Some of the land is stiff clay, some light and sandy, and some black loam.

The value of the lands depends entirely on the quality and location. Farms are most highly prized when located upon salt water. If highly improved, and beautifully located upon salt water, with fine fish, oysters, terrapins, crabs and wild fowl in their season, the price will average $50 or $60 per acre. Lands of equal merit, removed from the water, would not exceed $15 per acre. Exhausted lands, located on salt water, would bring $20 per acre; but if remote from water, will average $5 per acre. Wood land, when thickly set with large white oak, suitable for ship building, bordering upon navigable water, would sell at $100 per acre, while the same, remote from water, would not exceed $15. An abundance of shell manure is obtained from the waters, and it has been found very effective in improving the lands.

The grazing is excellent. Wheat and corn are the principal grains cultivated; live stock is abundant; every farmer raises wool for his own use, and a considerable quantity for sale. Every variety of vegetable is cultivated; and of late, excellent crops of sorghum have been raised. A mill for grinding the sorghum has been established. The culture of peaches has increased much of late, and yielded very large profits.

In the upper part of the county water power is abundant, and is improved by grist and saw mills. The lower parts of the county are without water power, and substitute windmills for grinding their cereals.

There are muddy creeks, bogs, marshes and swamps, bordering upon the fresh water rivers; and all such locations are subject to malarious diseases.

The shad and herring fisheries in the lower part of the county are thriving. Nearly every river and creek furnish throughout the year an ample supply of fresh fish for home consumption.

Oak, hickory, pine and walnut, which are the natural timber, and abundant, are shipped as lumber, staves and wood to Baltimore, Philadelphia and New York.

The transportation of the products of Dorchester to the markets of our great cities by means of schooners, sloops and steamboats, can be increased ad infinitum.

CAROLINE COUNTY.

Caroline county which is of small extent, is bounded by Dorchester on the South, and lies between the Choptank river and the Delaware State line. Several branches of the Choptank, and "Marshy Hope creek," the principal tributary of the Nanticoke river, convey the drainage from its surface.

Some of its soils are pure sand, of considerable depth, with clayey subsoils; some is low meadow land, composed of a rich black earth, very "drainable," which would, under proper treatment, produce good crops of oats, corn, and the most luxuriant grass. By far the largest portion of the land is loam, with clay bottom. This soil will produce grains, grasses, vegetables, cotton and tobacco. These two last are always raised in small quantities for domestic use. "They come to perfect maturity, yield well, and cultivated as a crop would *pay*." The sandy land is very productive in sweet potatoes; in fact, every variety of vegetable and root crop, peaches, berries and fruits grow well on it. Most of the farms are composed of all the varities of soil above enumerated, in various proportions. This gives the farmer the power to cultivate crops of all varieties. On many farms are found large deposits of muck, wood mould and other fertilizing material. There are generally comfortable, often commodious dwellings, and fine large orchards; timber is plentiful. Farming interests have been neglected, and the same system of sloth and waste that have impoverished the tillers has also impoverished the soil. But the exceptions where the farming is neat, the cattle sleek, the fences upright, and the buildings in good order, are a proof of what can be effected, and are a stimulus to exertion.

The county is well watered with creeks upon which coasting vessels trade, bringing lime, ashes, "government manure" and freights generally; taking wood, lumber, grain and vegetables in return. Up and down the Choptank river as far as Denton, steamboats ply, taking fruits and vegetables to a first rate market.

The prices of farms range from $10 to $25 per acre, and in some instances, below this lowest price; "there is no disputing the fact that many *bargains* are to be procured."

The general character of the country is level, not much rolling land, but the most of it is high, healthy, and has sufficient fall for all purposes of drainage. As a consequence, the roads are level, hard and easily traveled, and teaming can be satisfactorily performed.

Little or no land lies at a greater distance than five miles from navigable water; an item that will be duly appreciated by the observant farmer.

In climate, the heats of this county may be ranged with Philadelphia, though it has the same latitude as Washington; the salt waters probably allaying the extreme heats of summer.

The rivers and estuaries abound in fish, oysters, crabs, ducks and other game, and there is no season of the year but brings some one or many of these choice dishes for the table.

Bog iron ore is found in some localities in this county, but is not worked.

TALBOT COUNTY.

Talbot county is bounded on the East and South by the Choptank river, on the West by the Chesapeake bay, and on the North by Queen Anne's county. Its coast toward the Chesapeake is very irregular, and deeply indented with inlets and estuaries, forming the land into peninsulas and islands. The Wye river separates it from Queen Anne's county. The principal streams within the county are the St. Michael's river, Treadhaven river, Broad creek and numerous other small streams.

A remarkable feature of this county, and one that has contributed largely to its prosperity is its immense navigable water front. "Nearly three fourths of the farms of this county have navigable water at their doors, and of the balance the farthest is not five miles from a boat landing." With such extensive water privileges, and the abundance of fish for which the Chesapeake and its tributaries are renowned, fisheries could be prosecuted here to any extent.

The climate is moist and warm, the longevity of the inhabitants is beyond the average, and good health is universal.

The soil of Talbot in the upper portion of the county is loamy, with a red clay sub-soil: in the lower part, "white oak" soil predominates. Throughout this county are large deposits of shell marl, underlying which is the green sand marl. (This last is the positive statement of scientific men, and as the Eastern Shore has been, either facetiously or maliciously, represented as having been made of the odds and ends of creation, there can be little doubt that if there was any green sand marl left when New Jersey was finished, it will be found somewhere on the Eastern Shore.)

On the Choptank river thirty miles above its mouth, and five miles from Easton lies an immense bed of marl in a situation most favorable for shipment. With proper conveniences

a proprietor could do a good business by delivering it on board schooners for two cents a bushel. Thus it might be served at a hundred points on the bay, with no extra cost save the freight, which would be little. This marl contains from 35 to 40 per cent of shells crumbling to powder, and is more beneficial to many soils than the imported guanos. It is usually dug in winter, when there is no other work for the farm hands. But it might be dug at any season.

The land according to quality *inland* is worth from $20.00 to $70.00 per acre. Fronting navigable water from $45.00 to $100.00 per acre, and with superior improvements somewhat higher. Wood land is distributed amongst the farm land, and sells at the same prices. Worn out lands range from $16.00 to $30.00 per acre. Farms can be purchased of any size from 50 to 900 acres.

Since the county has been limed, drained, and cleared, malarious diseases have almost entirely disappeared.

The leading products in the order of their importance are, wheat, corn, oats, sorghum, tobacco and flax. Peaches and some other fruits are extensively cultivated, but the statistics are not at hand which furnish an approximation of their value. From the early maturity of fruits, and their long time of bearing, it is probable this will prove the most valuable crop to the farmer.

Wine of fine flavor and quality is made throughout the county, but hitherto not in sufficient quantities for exportation.

The little water power there is, is occupied with mills. The natural timbers are oak and yellow pine of the best quality for ship building; also hickory, chestnut, locust, cedar, ash and poplar.

QUEEN ANNE'S COUNTY.

Queen Anne's county is separated by Chester river from Kent county, which lies on the north of it; on the east it extends to the Delaware State line, on the south-east, it is separated from Caroline county, by Tuckahoe creek, and from Talbot county by Wye river and Eastern bay, and on the west is bounded by the Chesapeake. Kent, a large island on the bay shore, constitutes a portion of the county, and is notable as having been the site of the first settlement within the State.

The soils, though various, are mostly of the kind known as "white oak" soil, with a red clay sub-soil, and are well adapted to the cultivation of grains and grasses. The lower

portions of the county are peculiarly favorable to the growth of wheat. The surface is low, gradually sloping from the interior, drained by numerous creeks, with patches of forest dotted upon every farm. These forests are universally wet, and very frequent springs of running water are traced to their shady depths. Marl of a superior quality is abundant, and much used as manure.

The water is good.

The only mineral found is bog iron ore. Some of the largest "truck" farms on the Eastern Shore are found on the shores of this county.

Farm land can be had at prices ranging from $20.00 to $100.00 per acre. Wheat, rye, corn and oats are grown.

KENT COUNTY.

Kent county occupies the whole of the peninsula between Sassafras river and Chester river, and also several islands in the wide estuary of the latter river.

The surface is high and rolling, generally dry, and well drained by creeks flowing into its border streams, and its soils are very fertile. Wheat and corn and every variety of vegetable esculents grow abundantly. The grass is rich and nutritious and the live stock fed upon the farms is in greater number than in most counties of the State. Peaches are raised in immense quantities, and other fruits in smaller amounts.

Chills and fevers to a limited extent prevail in the autumn near fresh water locations.

The price of good lands is from $60.00 to $70.00 per acre. Wood land sells at the same rates. There is but little worn out land, and it is held from $25.00 to $30.00 per acre. The average size of farms has been about 250 acres, though there is so great a difference in the extremes that it is almost impossible to make an average.

The products of the county are forwarded to market by water; and steamers ply up and down the Chester and Sassafras rivers to Baltimore during the most of the year.

Grapes have been cultivated with much success, and wines are manufactured in this county which compare favorably with the best produced in the United States.

CECIL COUNTY.

Cecil county occupies the north-east corner of the State, east of Susquehanna river, and north of Sassafras river, meet-

ing the State line of Pennsylvania on the north, and Delaware on the east. It is traversed by the great line of railroad which connects Washington with the north; and crossed by a canal which joins the Chesapeake and Delaware Bays, and it is intersected by the North-east, Elk, Back and Bohemia rivers, and bordered by the Sassafras and Susquehanna. All these rivers afford navigation, and some of them in the interior of the county have sufficient descent to afford a fair supply of water power.

The soil is light and loamy, with a reddish clay sub-soil, interspersed with some barren tracts. Marl is abundant, especially on Bohemia river, and is extensively used.

In the lower part of the county, where the soil is lighter and more sandy; peaches are successfully raised, probably to the value $50,000 annually. This crop pays an average profit of $175 a year per acre clear of all expenses. There is a large region of country lying between the Elk and North-east rivers, of a sandy soil, growing chesnut generally, that would make excellent truck and garden farms, and which could be bought at low prices. Lying midway between Baltimore and Philadelphia, with railroad and water communication, already established, direct with both cities, and but six or eight hours distance from New York, for convenience of forwarding fruits and vegetables to the most desirable market, Cecil county is most fortunately located.

There is but little wood land in market, the price of which according to convenience and quality ranges from $30 to $60 per acre. Good land under cultivation sells from $50 to $100 per acre, according to location. There is much poor land in the county, valued from $10 to $20 per acre. Cultivated lands are not generally so much exhausted as they were ten years ago. This is owing to the universal use of lime which has been applied upon the shore lands abundantly, because of the facility with which it could be transported to the lands, and the great cheapness of the lime as a fertilizer.

Grass has been for many years a most profitable crop. "A gentleman of large experience and the highest character, told me a year ago, when hay was not so high as it is now, that his land in grass paid him the interest of $500 per acre, clear of taxes." Some years ago many families from Pennsylvania and New Jersey bought farms in the northern part of the county, and upon credit, but all who went earnestly to work have cleared their farms from debt, and some have become rich.

Fish and wild fowl abound upon the bay and rivers. At one time shad and herring fisheries were largely prosecuted, but of late they have somewhat declined.

For many years there have been no indications of chills, but last year upon the river shores, there was some return of chills in the Autumn in a mild form.

The water is good, labor is in demand, and wages are double the sum they amounted to, two years since; churches and public schools are established throughout the county.

At Port Deposit, on the Susquehanna, are immense and valuable granite quarries. The rock is something between a granite and gneiss, and has been called syenite by some.—It readily separates into flat blocks, with little or no expense in dressing. Soapstone is found at various points on the Susquehanna. Iron ores and chromes are mined on the northern boundary, and the silicates from which magnesia and epsom salts are manufactured. The belt of serpentine rock in the northern part of the county, which extends into Harford county, contains the most valuable chrome mines in the world.

The manufactures of the county are five paper mills, two cotton mills, one furnace, one forge, six rolling mills, three mills for bending shafts and felloes, besides many grain and saw mills. But though these are all worked by water power, there is probably one-half the water power of the county still unimproved.

Within the last few years experiments in grape growing have been attended with great success. All who have engaged in the business continue to enlarge their vineyards, and this branch of industry bids fair to become as profitable as any prosecuted in the county.

WESTERN SHORE.

The tide water district of the "Western Shore," includes the counties of St. Mary's, Charles, Prince George's, Calvert, Anne Arundel, Montgomery, Howard, Baltimore and Harford, although the last three, in surface and soil, are to some extent allied with the hilly or mountainous portion of the State, yet scientifically these counties are all grouped together. This district includes the earliest settlements of Lord Baltimore, and the capital of the State, with all their historic associations and rich old memories.

The early settlers devoted themselves almost entirely to agriculture, and the record which they have left of the fertility of their homes, seems to us to border upon the fabulous. While the Puritans of New England were driven to the seas to find their sustenance, the Pilgrims of St. Mary's, from her generous soil, gathered large harvests of corn, which they sent

thither and exchanged for the fish of Cape Cod. This exportation of grain commenced within three years after the settlement of St. Mary's, and Oldmixon states the quantity then exported as high as 10,000 bushels. This importation of fish is one of those freaks of trade, wisely ordered no doubt, which fill us, looking back upon them from a distance, with mingled amazement and amusement, for while bringing these edibles from abroad, the fisheries at her own door were richer than anything that New England could boast. The oyster beds of St. Mary's county, like those of the Eastern Shore, have been already referred to. The shad fisheries of the Potomac also are unrivaled by those of any other portion of the United States. From three hundred to thousands are taken at a "haul," with herrings innumerable, as high as 400,000 barrels of herrings per year have been taken from that river within a hundred miles of Washington, cured, barreled and exported, chiefly through the Baltimore market.

The colonists made the same mistake that settlers upon rich, virgin soils have often made before and since. They believed its richness inexhaustible, and tried it for a century with the most exhausting system of agriculture. Their successors fell into the opposite error, and believing the soil exhausted past recovery, removed to virgin soils in the South and West, to practice, it is to be feared, the same system of agriculture which they had practised in Maryland. In consequence the agriculturally rich lower counties of the State, the earliest settled, and in some respects most desirable counties, St. Mary's, Charles, Calvert, Prince George's and Montgomery, greatly diminished in comparative importance and actually had a smaller white population in 1860 than they had in 1790.

This sparseness of population, coupled with the belief of the hopelessness of cultivating the worn out soil, left much of it idle and uncultivated, and permitted it to grow up to waste, and the immigrant will find wood land abundant and very cheap.

The last few years have seen many and great improvements in this region. Experiments have proven the soil to be most grateful for generous and proper treatment, good crops have been obtained where it was absolutely desert, and the prices of lands have much advanced.

The means of reclaiming the lands exist within themselves in extensive beds of shell marl, and it is worthy of mention in this connection, that at this time the whole country within the range of its transportation might be fertilized by the thousands of loads of manure wasting and a nuisance in the horse corrals of the Government in and about Washington.

The soils of this section are, for the most part, similar to those of the Eastern Shore, a mixture of sand and loam, and easily cultivated. In the counties of St. Mary's, Calvert, Prince George's and Charles, there is found a very remarkable variety of soil, consisting of *tripoli* more or less mixed up with sand and vegetable matters. On the bluffs of the Patuxent this deposit of tripoli is found to vary from 5 to 30 feet in thickness. Tripoli is composed of the skeletons of a miscroscopic vegetable, (or animal,) which float upon the water of most streams, invisible to the eye, but furnishing the food of oysters and other mollusks. It is calculated that a cubic inch of tripoli contains thousands of millions of these skeletons. It is the minute size of these forms, so thin and fragile that they are easily broken, and their sharp edges, which make them serviceable in polishing, while the grains are too small to make a visible scratch. For polishing metals and all articles which are to be varnished, this is the best substance known. At some future day, when the mechanic arts have been developed to a greater perfection, tripoli will have a high commercial value. With such facilities for transportation as Maryland possesses, the tripoli might be profitably exported to Europe at prices cheaper than the Bohemian tripoli, which it far exceeds, and which has heretofore almost had a monopoly of the world's markets.

Tobacco, wheat and Indian corn, with about the usual proportion of smaller grains and vegetables, have engrossed the attention of the agriculturists of this section of the State. In the northern portions of it, within the last four years, much attention has been given to hay and grazing, and with decided success. The demands of the markets of Baltimore and Washington—large and rapidly increasing—for the perishable but more profitable esculents, fruits and vegetables, have in the vicinity of those cities, along the lines of the railroads, and near the bay and river "landings," to a great extent, divided attention from agriculture proper, to horticulture. The result is seen in the almost unlimited supply of strawberries, raspberries, blackberries, cherries, peaches, apricots, melons, canteleupes and table vegetables generally, of the finest quality, with which, in their season, those markets abound. The unconsumed surplus, passing through the numerous manufactories of hermetically sealed fruits, furnishes to our commerce and our navy the luxury of summer fruits, in all their varieties, in every climate and latitude.

Sorghum has recently been cultivated with decided success in the Northern portion of this District, mills established for its manufacture, and a convention or association of sorghum growers has been formed to aid each other by imparting information, the result of private experiments.

In the Southern part of this District tobacco has been long the leading article of export. "The weed" is raised of excellent quality, but the crop is not as heavy per acre as is reported to have been produced of late years in some localities further North; still the aggregate of the crop is large; Prince George's county alone having produced as high as eight to ten millions of pounds a year.

The mines of this District are numerous and valuable. Perhaps the most remarkable of these is the clay-beds—iron-ore clays and others—which extend through this District from the Potomac to the Susquehanna, and attracts the attention of travellers by railroad between Havre de Grace and Washington. These beds of clay, at several points between Baltimore and Washington, are elevated into hills, popularly called "mine banks," and with their interlying strata of sand and gravel attain an elevation of two hundred feet above tide water. The iron-ore clay is so named from masses of the argillaceous carbonate of iron which are found embedded in it. These exist in the form of nodules or irregular balls, varying in weight from a few pounds to a hundred, or even larger, and afford iron of a very superior quality. The clay in which they are found is free from sand, plastic, and well adapted for working by the potter. The abundance of iron which it contains gives the wares manufactured from it a decidedly red shade, thus unfitting it for the choicer wares, but not at all impairing its value for the manufacture of bricks, to which it is largely applied, and for which it has no superior upon the continent.

There is scarcely any limit to the "stone ware," "queen's ware" and common red ware which may be produced by the potteries among these clay-beds, and the bricks and draining tile have already an established reputation both for quality and cheapness.

In the lower beds, clay of a different quality is found, some of it so nearly free from iron as to burn to every shade of color, from an almost pure white to a very light gray, and from that to a lead color. The white clays have been brought into very little use, but their purity in several localities is such, that there can be no doubt that they eventually will be used extensively.

Another class of these beds presents a clay composed almost entirely of alumina and silica, combined in such proportions as to furnish a material for the manufacture of *fire bricks* of the best quality known to the market. Save in the continuance of these beds to a very limited extent into Eastern Pennsylvania and New Jersey, no clay of this quality is believed to exist in the United States. In Eastern Pennsylvania the

supply is inadequate to their own demand, and she already furnishes a market for this article to Maryland, which has already been able almost entirely to drive the English fire-bricks from the American market. As manufactures revive this will become an important interest.

In the Northern portion of this District are hills of metamorphic rocks, talcose and mica slates and limestones, which contain a variety of rare minerals.

Chromic iron ore has been extensively found, and the deposits largely worked. The chrome derived thence has supplied, to a great extent, the markets of Europe as well as America with this pigment. In the metamorphic rocks mines of copper exist, and are worked at several points, while hematite ore is supplied to several furnaces. Marble and limestone of excellent quality are largely quarried in the same group of rocks, while epsom salts and magnesia are manufactured from the silicates and hydrates of these minerals. Not less than two varieties of granite of good quality, and one of sandstone—called "seneca sandstone"—has been quarried for building purposes, and are extensively used.

ST. MARY'S COUNTY.

St. Mary's county occupies the southeast portion of the State, on the western shore of Chesapeake bay. It extends from Wicomico river to the Potomac, and from Indian creek to Point Lookout, being almost insulated by the finest waters of the State. It southern coast has several inlets (rivers they are locally called) communicating with the Potomac, and the coast facing on the Chesapeake and Patuxent river has the same general character. The interior is well drained by creeks flowing into these inlets, and some of them afford water power.

The surface is low and level in the southern and middle parts of the county, but in the northwest it is undulating.

When first settled the soil consisted of a "black mold in many places to a depth of two feet, under which was loam," and the universal practice of the planters was to alternate the crops of tobacco and corn, without allowing any rest to the land, or applying any renovator, until the productiveness of the region was decreased to such an extent, that in many places the crops would scarcely bring the cost of raising them. The last thirty years have witnessed a great improvement in the farming of the county, and the crops of wheat have often been quadrupled by intelligent management. This improvement has been mainly produced by the use of lime and marl.

Point Lookout, the southern extremity of this county, and Piney Point have both acquired an extensive name for their invigorating sea air and bathing facilities.

No rocks or mines worthy of mention are found in the county. Marl is abundant,

The crops of the county find ready transportation to market by water steamers of large class passing around it and ascending its rivers. A large amount of land is for sale on very moderate terms.

CHARLES COUNTY.

Charles county lies between the Patuxent and Potomac rivers, with Prince George's county on the north and St. Mary's on the southeast.

The surface of this county, like that of St. Mary's, resembles the Eastern Shore, and is low and sandy, with scarcely a rock in its whole extent.

A number of streams which are tributary to its bordering rivers, waters its plains, and it possesses abundant commercial facilities in its good harbors and navigable waters.

On the banks of Port Tobacco creek and at other points the green sand-shell marl exists in large quantities; and according to analysis contains from 20 to 60 per cent. of carbonate of lime. A large proportion of the most valuable beds are so much elevated above the water level that they can be worked out very cheaply.

The soil of Charles county has been much exhausted by neglectful culture, but the present owners are endeavoring to restore and improve it.

It is entirely an agricultural county, and much devoted to tobacco growing, but it also produces a surplus of grain. Fruits are abundant and varied.

CALVERT COUNTY.

Calvert county is a peninsula about sixty miles long and ten miles wide, bounded on the east by the Chesapeake bay, and the west by the Patuxent river. It is joined on the north by the county of Anne Arundel.

The surface is undulating and declines from a central divide towards the waters forming its boundaries into which numerous small creeks are emptied. The soil is a soft fine mold

except on the Patuxent river where it is more clayey. It is well adapted to the culture of corn, tobacco and wheat.

The climate is warm and moist but healthy save near the marshes where malarious diseases occur.

Oak, chestnut, pine and locust are the natural timber growths. The wood land mostly lines the shores of the bay and river and is very convenient to the Baltimore and Washington markets. The average price of pine wood land is $10 00 or $12 00 per acre.

Exhausted or worn out land can be purchased for $10 00 per acre, good land under cultivation is about $30 00 per acre. The size of farms has been about 300 acres.

The great staple crop of the county is tobacco, but wheat and corn are also largely cultivated.

At the time this county was settled many of its slopes were covered with vines, and there are proofs that the early colonists cultivated vineyards. But at this day the culture of fruits in the county is small and only suffices the wants of the population.

The waters of the Chesapeake bay and Patuxent river abound in the finest fish and oysters, and thousands of bushels of oysters are annually carried to the Baltimore and northern markets. A large number of men are engaged in catching and transporting them. An ordinary man during the oyster season, that is from September to May, can make from $5 00 to $15 00 per day in that business.

Tripoli, which is used as a polishing material for all goods that are finished by varnishing, and also for some metals, is found in many localities. On the banks of the Patuxent the deposit of tripoli varies from 5 to 30 feet in thickness.

Few counties offer greater inducements to immigrants from the low price of the lands and the flexible, improvable character of its soil, the nearness to the markets of Baltimore, Philadelphia and Washington, the facility of water transportation and the abundance of edible luxuries afforded by its waters.

At the same time it should be added, that in this county, as in the two preceding, the immigrant from a more northern latitude should be wary in his selection of a home. There are localities in all of these counties where an unacclimated immigrant can have no prospect of passing a year without serious billious fevers or chills and fevers. He must, therefore, note carefully the surroundings of his home, select some of the numerous sites which are as free from malaria as any portion of the North, and observe those simple precautions which

any old resident will readily and easily teach him. He may then pass the acclimation without peril.

ANNE ARUNDEL COUNTY.

Anne Arundel county lies on the west side of the Chesapeake bay, between the bay on the east, the Patapsco river on the north and the Patuxent river on the south. The north-western part of the county was in 1851 formed into the county of Howard. On the south it joins Calvert county.

The surface save in the vicinity of rivers is undulating and pleasantly diversified. Near the bay the land is generally low and in some places wet. The soils are of every variety, from the stiffest clay to the lightest sand, with all the intermediate shades. The lower part of the county consists of hills and plains of clay and sand, the hills rarely elevated more than a hundred feet above tide water. There are some very fine soils in this county and extensive marl deposits which furnish a rich manure.

The prices of land are exceedingly various, ranging from $5 00 to $100 00 per acre. The contiguity of the county to Baltimore and the great facilities for transportation to its markets by steamboat, schooner and railroad, and also to those of Philadelphia, Washington and Annapolis, have enhanced the price of land suitable for fruit and market gardening, and have led to a successful and profitable cultivation of small crops. Potatoes, yams, corn, cucumbers, garden peas, cabbage and tomatoes are largely cultivated. United with the culture of these and other vegetables is that of small fruits. The melons of Anne Arundel, particularly the cantaleupes, have a fame for their superior flavor in all the eastern cities. Anne Arundel strawberries have no superior, and some of the growers devote as high as two hundred acres to the production of this luxury and find a ready market for all they can produce. The soil and climate are both admirably adapted to the culture of the grape, which though recently introduced for the manufacture of wine, has been sufficiently tested to warrant success.

That part of the land lying immediately upon the water courses is more or less subject to autumnal fevers, (which would without doubt, disappear as elsewhere under a judicious system of drainage and culture,) but nine-tenths of the county is now as healthy as any part of the State.

Shad and herring are caught in limited quantities and oysters in exceeding great abundance and perfection. From the earliest times these salt water luxuries have been the pride and boast of the people of this county, with the comical draw-

back of the inconvenience and nuisance which they endured from the shells of the molluses. As early as 1708 the Vestry of St. Anne's Parish by solemn order ordained that the oyster shells in the vicinity of that church should be levelled down to a level with the ground sill of the church. In more modern times the people have perhaps better learned the economical uses of these "shucks," and between the demand for both shell and kernel, abroad and at home, these products of the bay and its numerous arms are a source of great profit as well as a luxury, not to be despised.

In the interior of this county there is a considerable amount of water power, but it is improved only for moderate local purposes.

The county roads in this and the three preceding counties leave everything in that respect to be desired, and probably few features will be more marked in the "good time coming," than the improvements in the facilities of neighborhood communication.

PRINCE GEORGE'S COUNTY.

Prince George's county lies immediately north of Charles county, from which it is separated chiefly by Mattawoman creek, which empties in the Potomac; and Swanson creek, which is a tributary of the Patuxent. The Patuxent river forms the northern and eastern boundary of Prince George's, and the District of Columbia and the Potomac river its western border, while Montgomery county joins it on the north-west.

The soil consists of the best loam and sand intermixed with clay. The underlying strata is shell marl and cemented sand, resembling sand-stone. The surface, which is agreeably diversified, abounds in springs and brooks of pure water, and in many localities the waters are highly chalybeate. That fertile section of Prince George's known as "The Forest," was not very productive under the old system of cultivation. Gradually it became less fertile till wheat was scarcely sown save in patches about the dwellings, and the "crops of Indian corn were barely sufficient, even in the best seasons, to supply domestic wants." This soil has been improved almost beyond parallel, and to the application of gypsum a great share of the improvement is accredited.

The principal products are tobacco, wheat, Indian corn and rye. The tobacco of this county is often two-fifths the entire crop of the State. The air and the soils must have always been favorable to its growth, for among the papers of the Calvert's, in the latter part of the 17th century, it is said that

"a hundred sail of ships, at his Lordship's vast expense, industry and hazard" did yearly convey the tobacco from this locality to England and the West Indies.

The climate is temperate and healthy, and the facilities for transportation of produce are naturally ample. The fine navigable rivers which border it and connect it with the Chesapeake, and the proximity of Washington, offer advantages which an industrious and thrifty population could not fail to improve.

Near Oxon creek are large supplies of sulphuret of iron. It is not improbable that manufactures of sulphuric acid from this mineral may be commenced, since new improvements have been perfected.

At Fort Washington there is a ferruginous clay, known by the name of "bole," which is employed to dye cloth and thread, of a red color. This substance when heated attracts the magnet. Here also are found petrified shells weighing several pounds.

Iron ore is abundant in some sections. The tripoli mentioned before is found in many localities, and at Nottingham the export of it to the large markets of our own country has commenced in a small way.

Excellent water-power is found in the county, but is improved only to a limited degree.

Besides the facilities for reaching markets which are furnished by the Potomac and Patuxent rivers, the Baltimore and Washington railroad traverses the entire north-western side of the county, and places the resident within an hour and a half of Baltimore, and a few minutes ride of Washington.

Some of the finest farming in the State is done in this county, and the State Agricultural College is located here. In its vicinity there have been culture, crops and cattle unsurpassed in Maryland, perhaps unsurpassed in the country.

Wine has been and can be successfully cultivated in this county.

MONTGOMERY COUNTY.

Montgomery county lies between the Patuxent and Potomac rivers, being adjacent to the District of Columbia at its southern corner. It is bounded north-west by Frederick county, and south-east by Prince George's county and the District of Columbia.

The surface of the northern part of the county is hilly, and gives rise to numerous fine creeks which flow in every direction from it. Those creeks which, flowing southward, empty into the Eastern Branch of the Potomac, especially Seneca and Rock creeks, have excellent mill sites. The water is excellent.

The soil, where neglected, is thin and sterile, and in some parts greatly reduced by an exhausting system of cultivation. The few last years have, however, witnessed great improvements in the tillage.

The prices of worn out lands (which are numerous) range from $10.00 to $25.00 per acre. Good land under cultivation ranges from $30.00 to $100.00 per acre; proximity to market greatly enhancing the value. The price of wood land is about the same as improved land.

The county is finely situated for successful gardening and farming from its nearness to the Washington market, (one of the best in the country,) and from the kindness of the soil and genial temperature. The grass is very fine, and hay is the most lucrative crop, though wheat and corn are largely grown for market.

The Seneca sandstone is worked at extensive quarries at the mouth of Seneca creek. It is easily quarried and dressed, being somewhat soft when first taken out. It has been largely used in the erection of public buildings in Washington, and in the construction of the canal. Near Hyattstown, in the north-western part of the county, a quarry of excellent roofing slate has been opened.

Gold has been discovered in this county, and a mine was opened and worked some fifteen years since; but, as is the case with most gold mines, the pure metal cost more than it was worth. Chrome ore is found and manufactured in the northern part of the county.

The great Falls of the Potomac, perhaps the grandest water-power in the United States, are upon the southern border of this county, giving hope and promise of some grand future in store for it when art and industry shall have further developed its resources.

This county is the residence of many of the most wealthy and influential citizens of Washington city, and will naturally be selected by business men in that city who seek salubrious country residences.

The Chesapeake canal runs the whole length of the south-western border, and various railroads approach near but do not intersect it. A railroad is projected throughout the heart

of the county, which will no doubt be built in a few years, and will greatly facilitate communication with Washington, inasmuch as it will diminish the distance between Washington and the West not less than sixty miles.

This county has suffered largely during the last four years at the hands of marauding bands of rebels—great and small. With the suppression of the rebellion a new future must open before it; the great growth of Washington will furnish her farms and gardens a ready market for all their produce; and the manure piles of Washington will furnish fertility both to Montgomery and Prince George's. No immigrant who desires to devote himself to market gardening should pass this county by without a careful examination.

HOWARD COUNTY.

Howard county is situated between the Patapsco and Patuxent rivers, lying north-west of Anne Arundel county.

Numerous streams rising from the interior of the county fall into the rivers which almost surround it, and in their course afford considerable water power. These mill sites are to a great extent improved; and around the various factories of cotton and wool, have sprung up flourishing villages, and thriving neighborhoods.

The surface of the county is undulating and the soil productive. A range of high hills, known as "the Elk Ridge," extends nearly through the county. Excellent wheat land, and some of the finest farms for the raising of cattle and sheep, which the State contains are to be found upon this ridge.

There is a variety of granite quarried near the Little Patuxent river, a short distance above the Baltimore and Ohio Rail Road, of a very light shade of gray, which much resembles the famous Quincy granite. There are many varieties of granite quarried between Baltimore and Sykesville. One variety called porphyritic granite, has reddish crystals of felspar disseminated through its mass.

The Cathedral and Record office in Baltimore were built of the granite quarried on the Patapsco river.

Pure air, the finest of water, and abundance of beautiful building sites are to be had in this county. These, coupled with a fertile soil, proximity to flourishing villages, ready communication by Rail Road with Baltimore and Washington, and the advantage of successful experiments upon the soil already made, and farms in a good state of cultivation, render this county a very desirable location.

HARFORD COUNTY.

Harford county on the east reaches to the Chesapeake and Susquehanna river; on the north it touches the Pennsylvania State line, and it extends west and south to the confines of Baltimore county.

The southern part of this county is low and flat, and has extensive arms of the Chesapeake penetrating far inland, which receive the drainage of about one half the county. The northern part of the county, which is high, hilly, and rocky, is watered by Deer creek and other branches of the Susquehanna river.

In the lower part of the county, clay soil predominates, mixed with sand and gravelly loam. The people of the county have always maintained that no better farms can be found than they can show in "old Harford." In all parts of the county are excellent grass lands, and varied harvests. Wheat, oats, and Indian corn are largely cultivated, and the culture of sorghum has advanced with unusual rapidity. There was produced last season in this county more than 25,000 gallons of sorghum syrup. Mills have been erected for grinding and pressing the cane.

The farms and roads generally bear testimony to the great improvement made in agriculture during the last 10 or 15 years.

There are some fine sites for milling and manufactures, and an abundance of excellent water power. The Philadelphia, Wilmington and Baltimore Rail Road traverses the county. The Tide Water Canal winds down the Susquehanna to Havre de Grace and then with the Chesapeake and its arms afford a ready communication with excellent markets.

A little distance from Abingdon, porcelain clay, pure white, free from metallic oxides and impurities, has been discovered, and if the proper manufacturing establishments were started, an abundance of clay could be furnished, fitted to make the finest of porcelain ware. The county contains very valuable mines of iron and chrome which are partially worked, and of magnesia which is hardly worked at all.

Good land can be purchased for $30.00 per acre. Wood land at $15.00 per acre; and worn out land at about the same price. The farms are generally from 100 to 150 acres in extent, but in some instances much larger.

The shad and herring fisheries, chiefly in the Susquehanna, are extensive, though not as largely prosecuted as some years ago. In the autumn, acres of ducks, geese and swan are to be seen in the estuaries of the Chesapeake, and afford much

"sport" and no little profit to many who then devote themselves to harvesting this crop for the markets. Wine is made with great success, but only in a small way.

BALTIMORE COUNTY.

Baltimore county is bounded on the north by the Pennsylvania State line; south by the Chesapeake bay and Patapsco river, on the east by Harford county and little Gunpowder Falls, and on the west by Carroll county, and ranks as the most populous and in all respects among the most important of the State.

With a surface varied and uneven, but with no portion incapable of agricultural improvement, this county is equal to the best portions of the State for all industrial employments. The rivers and "falls" which traverse it, afford immense water power, and are the sites of milling operations more extensive than is found in any other portion of the Union. The banks of Patapsco river, Gwynn's, Jones' and Great Gunpowder Falls and their tributaries, are literally alive with the din of industry, and have long been the seats of a large and flourishing trade.

The soils are thin and rocky, but fertile and well adapted to the production of grains and grasses. An excellent wheat soil is frequent, called "red land;" which is formed from decomposed hornblende rock.

In many parts the cultivation of fruit trees is extensive, and pears, peaches, cherries and apples are produced in large quantities. That part of the county in the vicinage of Baltimore is remarkable for the fine quality and profusion of its garden vegetables.

Wheat is more generaly cultivated than any other grain. The price of good land for farming purposes ranges from $50.00 to $100.00 per acre. Wood land from $50.00 to $75.00. Worn out land from $20.00 to $40.00. The average size of farms has been about 150 acres.

In the vicinity of Baltimore city a large trade is carried on in fruits, oysters and vegetables, which are hermetically sealed for foreign uses. This business affords employment to a very large number of laboring women and children.

Iron ore is found throughout the county, bordering on the metamorphic limestones, and is smelted in furnaces at Cockeysville and other places. The ores found are the brown hematite, the magnetic oxide, and the carbonate.

About seven miles N. N. W. of Baltimore is a district called the Bare Hills because of its sterility, which is due to

the large quantity of magnesia in its soil. A serpentine formation found there contains chromiferous iron ore. It was from this ore that chrome was first obtained in sufficient quantities to be used as a pigment. From this deposit, and the veins in Montgomery and Harford and Cecil counties, whichare probably a continuation of the same, all the chrome used in this country has been obtained, and much of that used in Europe. On the eastern border of the Bare Hills a copper mine has been opened. Six miles south-west of Bare Hills is another location where the chrome has been manufactured, and also epsom salts.

The lead colored clays in the vicinity of Baltimore have always been celebrated for producing building bricks, unequalled in the country for uniformity of color and smoothness. These clays are also manufactured into the Baltimore stone ware and the usual varieties of glazed and unglazed red earthen ware.

There is an unlimited amount of marble in Baltimore county, and it may be divided into three varieties:

1st. The fine grained white, or nearly white marble; such as that from which the Washington Monument in Baltimore was constructed. The best of this variety is taken out from the quarries near Cockeysville and Texas. The strata in these quarries is nearly horizontal, which facilitates the quarrying of huge blocks.

2d. The alum marble. This variety is well known from its use in the construction of the Patent Office at Washington. This kind has been proven to be of great strength by experiments, but the large crystalline grains which are thought to improve its beauty, increase the labor, and consequently the cost of dressing it.

3d. The grey or bluish grey marble, which is liable to turn yellow from the oxidation of grains of iron pyrites disseminated in it.

Large quantities of lime of excellent quality is prepared for market along the line of the Northern Central Railway.

Pure corundum, which when ground or powdered is sold under the name of emery, has been found twenty-one miles north of Baltimore. It has never been put to any practical use to any considerable extent.

The Northern Central Railway extends the whole length of the county; on the eastern side the Philadelphia, Wilmington and Baltimore Railroad passes through the whole range of market farms as far as Gunpowder river, and in addition to these the Back river, Middle river and Gunpowder

river, with excellent turnpikes radiating from Baltimore, afford all that could be desired of facilities for reaching the markets of that city.

THE MOUNTAINOUS DISTRICT.

The last two preceding counties, with Cecil previously sketched, and all that remain, bound upon Pennsylvania, and have been sometimes grouped together in descriptions of the agricultural resources and attractions of the State. This is scientifically inaccurate, although there is great similarity in their general agricultural productions. Through this whole range also, the counties of Maryland are very similar in all their productions to the adjoining counties of Pennsylvania.

It is here styled the Mountainous District merely for convenience of designation, not in any invidious sense, nor because the region is untraversable or uncultivable. On the contrary, it contains some of the finest roads and most desirable farms in the State. It includes four counties, Carroll, Frederick, Washington and Allegany, and has its eastern boundary in the range of stratified rocks, granite, (or more properly gneiss), slates and limestones, which lie nearly parallel with the Atlantic coast, and form the limit of the tertiary formation. The width of this range from its eastern border to the points where it is covered with "middle secondary red sandstone," is from twenty to thirty miles. This region is characterized by hills of moderate height, whose rounded summits present a striking contrast to the long parallel ridges of the Alleganies. They are covered with verdure, and the streams which intersect them are, for the most part, characterized by abrupt banks with very small tracts of alluvial soil.

The narrow strip of red sandstone may be traced from New Jersey, through Pennsylvania, enters Maryland and passes through Carroll and the eastern portion of Frederick county, to and across the Potomac, just west of Montgomery county. In this geological formation mines of copper, more or less frequent, are found throughout the United States.

The belt of metamorphic rocks lying west of the sandstone trough, has a width of but a few miles; and at the western line of Frederick county, the Catoctin and South Mountain range, are found the silurian rocks, the Pottsdam sandstones, the Trenton and associated limestones, and generally the first rocks of Appalachian range. This range extends from Vermont to Alabama, under various names, and its geological features have been too often described, and are too familiar to

intelligent readers to need any full description here. It differs in no respect in Maryland from the form it presents elsewhere. Long regular ridges, extending in nearly parallel lines, in the general direction of northest to southwest, with interlaced valleys of great beauty and considerable fertility, are its most prominent characteristics. One of the finest valleys in this range is the one known in Pennsylvania as the "Cumberland valley," in Maryland as "the Hagerstown valley" and in Virginia as "the Shenandoah valley," and is a good illustration of all. It has a rolling surface and fertile soil resting upon "Trenton limestone," which is remarkable, as containing all the great caverns of the country. Beyond this valley is a belt from thirty to sixty miles wide of ridges of moderate height with their included valleys, and we reach the base of the Alleghanies. It is geologically certain that the rocks in this belt, now folded, fractured and abraded, were originally horizontal, and formed deposits continuous with the rocks of the great western coal fields. The beds of iron and bituminous coal, which form the most remarkable feature in the Maryland portion of this mountain chain, are too familiar to require extended general notice.

This district of the State is admirably adapted to the raising of stock, including sheep and horses in the term, and to manufactures. Excellent crops of wheat are harvested, and there is scarcely a square mile that is not in the highest degree salubrious. Nearly all the maple sugar which is manufactured in the State, and amounts to from sixty to a hundred thousand pounds a year, is raised in this section.

South Mountain, Antietam, Monocacy and other fields now invest this district with historic interest.

CARROLL COUNTY.

Carroll county, lying north of Howard, west of Baltimore, east of Frederick, and extending from the Patapsco river to the Pennsylvania line, in soil, surface and productions is not widely different from the adjoining counties.

The surface is hilly and rocky with fine streams, which are tributary to the Monocacy and Patapsco rivers. The water of the country is remarkably pure and good. Excellent mill sites are abundant, and are mostly found on the line of the Western Maryland railroad, which runs from Baltimore westward through the county, and which will connect Hagerstown with the sea-board when completed.

The grains cultivated are wheat, rye, corn and some potatoes, sorghum and buckwheat. The amount of grazing is

very large, and more than one-tenth of the butter in the State is made in this county.

The soils are limestone, "red lands" and slaty soil.

Good lands range in prices from $60 to $150 00 per acre, wood land from $40 00 to $175 00, and worn out land from $10 00 to 20. The average size of farms has been about 150 acres.

The brown sandstone so much valued for building purposes is found in the western part of Carroll, and will no doubt soon compete with that now furnished from Connecticut. The difficulty of transportation which has hitherto kept it from the public, will be surmounted by energetic active measures on the Western Maryland railroad. In Emmitsburg, among the upper layers of brown sandstone are found strata of flagging stone. Some of it separates into flags from two to four inches thick, with smooth straight surfaces. It has not yet been offered for sale in our cities.

From Westminster ranging north to the Pennsylvania line for ten or twelve miles, immense quantities of iron ore are found of that variety called hematite. When fused, it yields from thirty-five to forty-five per cent. of pure iron. At Sykesville the iron furnace is in part supplied with magnetic oxide of iron, which is the richest of all iron ores. This ore is mined near that place.

A copper mine has been opened near Sykesville, and one also near Finksburg, and several at various points between, and it is probable if sufficient capital and skill were applied these mines would become very productive. The copper ore found here consists of yellow or pyritous copper and the purple copper ore. There are abundant traces of copper in the north-west part of the county.

The soap stone quarry at Marriotsville, which has been and still is very extensively worked by the Maryland Soap Stone Company, furnishes the purest quality of soap stone known. At the manufactory in Baltimore, it is sawed into slabs for a variety of uses, and the refuse stone and the dust obtained by sawing are valuable for foundry purposes. Such is the demand for soap stone dust, that mills have been erected at several places for its manufacture.

There are cotton and woolen factories in this county, four paper mills and a large number of tanneries.

It reaches market by an excellent turnpike reaching from Baltimore to the Pennsylvania line; and by the Baltimore and Ohio and the Western Maryland railroads.

FREDERICK COUNTY.

This county which is one of the richest and most beautiful counties in the State, lies between the State line on the north and Montgomery county on the South, and between Carroll county on the east and Washington county on the west.

The largest streams in it are the Monocacy and Catoctin rivers, both tributaries of the Potomac.

The general character of the soil is limestone, interspersed with a slaty soil and some "red land." It is easily worked and produces large crops of wheat and corn. The surface is undulating, but in the western portion near South Mountain it is somewhat hilly and broken. The eastern slope of the Catoction mountain produces grapes whose quality is unsurpassed, and these lands are rated very cheap. The catawba and other varieties grow there with entire success. Besides wheat and corn the heaviest product is hay. The most fertile parts of the county are the Middletown valley, the Monoccacy valley and the eastern side of the county.

The price of good farms with improvements, according to location, &c., ranges from $45 00 to $200 00 per acre. Wood land from $30 00 to $100 00. There is very little worn out land in the county; price of such from $10 00 to $20 00 per acre. More than half the farm lands are of first rate quality. The size of the farms from 100 to 150 acres.

Water power occurs in almost every locality. Streams and springs which have their sources in the adjacent mountains, flow through every farm, and furnish abundance of the purest water. These streams have sufficient fall to make them available for manufacturing or agricultural purposes. The roads are excellent, the scenery magnificent.

The narrow valley extending from the Monocacy to Buckeystown and beyond, is rich in a deposit of fresh water marl. This marl is deposited by the waters of the streams. It consists of lime and earthy matters, and extends to a considerable depth. There is enough in this single deposit to enrich thousands of acres, and there are probably many similar deposits in this and Washington county.

Copper mines in the Linganore section have been worked ever since the Revolutionary war. Near the town of Liberty two of these mines have been extensively worked, but the excessive prices of transportation have caused their neglect for some years.

There are good quarries of slate in the same district which has been applied to local uses, but the cost of transportation has prevented their being largely worked. At Ijamsville, on

the Baltimore and Ohio railroad, fifty-three miles from Baltimore, excellent roofing slate is worked which will be better still when worked to a greater depth.

Along the sides of the Catoctin mountain from Frederick to Emmittsburg, iron ore abounds. It is remarkably pure, and is of the kind called brown hematite. Although the beds of this ore have been worked for eighty years, the supply is so ample, that it seems comparatively inexhaustible.

From Woodsboro' to the Potomac is a range of limestone unusually pure, formerly used in the manufacture of chloride of lime. It varies in color from blue to dove color; takes a beautiful polish, and is similar to the famed Italian marbles of that color. The blue shades are of vegetable origin, and therefore permanent. At the foot of Catoctin mountain there is a bed of similar limestone, and also one resembling verde antique. Three miles west of Frederick is a marble variegated with light and dark shades of red. Another marble, widely known from its having been used for columns in the old hall of the House of Representatives of the capitol at Washington, is found in large deposits on the west side of the Monocacy Valley. In its character it is something between a conglomerate and a breccia. It has been much admired, but the difficulties of dressing have prevented its more frequent and general use. Some of these marbles have a very dark color and are required for black marbles. The major part of them are free from impurities, of a fine grain, and take a polish without difficulty. Limestone, in suitable condition to burn for lime, is abundant in all parts of the county.

Weverton, situated at the extreme southwestern corner of the county, and contiguous to Washington county, three miles from Harper's Ferry, on the Baltimore and Ohio Railroad and Chesapeake and Ohio Canal, has a water power estimated by Engineer Hughes, sufficient to drive 333 water wheels. It is already improved by a dam across the Potomac, built by a company who purchased the water power in 1846 for $100,000, made these improvements, became involved, ceased operations, and the property is now again in the market. Northern capitalists have heretofore refused to purchase because Maryland was a slave State. The fall of water at this dam is 10 feet. Between this water power and Harpers' Ferry there is another water power of 15 feet fall, which is unimproved. The country is capable of furnishing all produce which might be needed by extensive markets, and the price of coal for fuel is very low. A railroad has been projected, and the route surveyed, to connect this point with Hagerstown; the Baltimore and Ohio Road traversing the southern portion of the county (with a branch diverging to Frederick city) connects it with Baltimore; while the West-

ern Maryland Road will traverse the northern portion of the county, and a new line will soon be constructed from the Monocacy or Point of Rocks through Montgomery county direct to Washington, bringing the whole of this rich county close to good markets.

WASHINGTON COUNTY.

Washington county occupies a large and valuable tract in the western part of the State. It extends from the Pennsylvania State line on the north to the Potomac river on the south. It is bounded on the east by Frederick county at the South Mountain, and on the west by Allegany county at Sideling Hill creek. The windings of the Potomac make the southern boundary very irregular, and the width of the county north and south varys from three to thirty miles.

The surface is partly mountainous, but the intervals are wide and finely undulating. The principal vallies are those through which Antietam, Conococheague and Israel creeks flow to the Potomac river. Lime and slate are the chief rocks. The limestone rocks are cavernous, which imparts a peculiarity to the physical geography. Most of the streams are fed by copious springs in such abundance that they furnish mill seats a few hundred feet from their sources. These streams are charged with bicarbonate of lime acquired by contact with limestone rocks in subterranean reservoirs.

The most fertile lands are based on limestone clay, those on slate being usually thin. The limestone clay and "white oak" lands are very productive, and are sold at an average of $80 per acre. Wood land at $150. Worn out land, which is very scarce, at $40 per acre. The number of acres in a farm is from 150 to 400. In the western part of the county, the soil is sandy or gravelly, sometimes mixed with red shale, and well adapted to wheat, grass, and stock raising. In this vicinity land is from $4 to $40 per acre. Water power is abundant.

The cereals mostly cultivated on the limestone lands are wheat and corn. The corn sometimes yields 100 bushels per acre; but 60 bushels is a full average crop. Wheat will not average under the present styles of cultivation more than 18 bushels per acre, but if the land is fresh broken 30 bushels per acre are often raised. Potatoes are not abundant; the corn land being too heavy for them. A tract of land lying along the base of South Mountain, peculiarly sandy is admirably adapted to their growth, and has yielded 250 bushels to the acre.

The cultivation of sorghum has commenced, and will no doubt increase in a ratio with a knowledge of the art of man-

ufacturing the syrup. Beets, cabbages, onions, beans, and other garden vegetables, grow most luxuriantly, but are only cultivated for home consumption. The application of science to farming, by which practical men may learn to increase the productiveness of their lands, is greatly to be desired in the county.

Beaver creek, where it empties into Antietam creek, has a very valuable, though unimproved, water power. There are also other unimproved water sites on the same creek.

The Antietam creek, from its source to its confluence with the Potomac, has a fall of not less than 1,000 feet. This power is available during the entire year. There is an immense water power where the Antietam enters the Potomac, formerly used to drive the extensive machinery of a very large foundry.

The Conococheague creek has a considerable water power which is unimproved. The water sites on these streams are used only for flour mills, with one paper mill and one woolen factory.

The limestone from which hydraulic cement is manufactured, is abundant in the neighborhood of Hancock, and has been calcined and ground for the markets.

The climate of Washington county is unusually healthy.

The roads are, like those of Frederick county, in first rate order.

The minerals of Washington county have never been attentively studied. It is known that iron ore is abundant in several localities, but there is no trace of the copper which is met with on the eastern side of the mountain.

Five miles below Williamsport is a hard calcareous black slate, which splits into parallel layers from one-half inch to three inches thick. It takes a fine polish, is durable, and when brought into general use as it should be, and no doubt will be, must prove a source of great profit.

Emery (corundum) is found near the Antietam iron works.

Markets are accessible by the Chesapeake and Ohio Canal, or by the Cumberland Valley Railroad leading from Hagerstown to Harrisburg, and passes along its southern border. Charters have been granted to construct railroads from Hagerstown to Washington and Baltimore, under favorable auspices. The Western Maryland Railroad, now completed to Union Bridge, will, as it progresses, traverse the whole northern tier of districts and develop more fully the resources of that region.

During the last four years, this county has suffered immensely from rebel devastations. In the earlier stages of the

war a persistent effort was made to destroy the Chesapeake and Ohio Canal, and for months there was daily more or less cannonading and musketry firing across the Potomac between its assailants and defenders. In the subsequent great invasions of Maryland in 1862, 1863, and 1864, there was an almost total destruction of crops, fences and stock, through Washington county. It will take years of industry, frugality and prosperity, to repair these losses, but it is "only a question of time." Elasticity and energy will restore what vandals swept away—all save the priceless lives and desolated hearth-stones.

ALLEGANY COUNTY.

Allegany county occupies the north-western part of the State, and is crossed by the range of mountains from which it takes its name. In geological character it resembles the Allegany regions generally, the prevailing rocks being various colored sand stones and lime stones, traversed with quartz, slate and shales.

The elevation of this county above tide water is so great, that the summer is much cooler than on the shores of the bay, and frosts linger later and sooner re-appear.

The rivers which take their rise in the mountain gorges of this county, find their way eastward through the Potomac, to the Atlantic ocean, and west through the Monongahela, Ohio and Mississippi rivers, to the Gulf of Mexico. The largest streams in the county, are the Youghiogany or Yog river, George's, Savage, Wills, Town and Fifteen Mile creeks, all of these, except the first named, empty into the Potomac which makes the entire southern boundary of the county.

The surface of this county is rugged and broken, and the greater part still covered with the native forest, but the mountainous districts are alternated with broad level valleys called glades. They are as yet mainly unenclosed and unimproved. These glades or meadows, for miles are as flat as the tide water marshes, and are covered with natural grass without timber or trees of any sort. The soils of these glades contains large proportions of vegetable matter to a depth of many feet. It is dark, porous and chaffy, like the black gum swams of the Eastern Shore. The spontaneous grasses of these glades are famed for their luxuriance and the rich nutriment they afford. Before the present war, thousands of cattle were annually driven over from Virginia every season to fatten on the abundant grass, and the butter made in these elevated valleys, rivalled the celebrated Goshen county butter of the New York market. The lofty hill sides protect these glades from the cold to such a degree, that out door

labor is seldom suspended, and cattle require housing only in the middle winter months. The extent of these glades is perhaps 200,000 acres. Besides the pasturage they afford, hay is harvested from them in immense quantities. "An old quartermaster of the army said that he had bought more hay in Cumberland than could be purchased in any one county, East or West."

Besides the soil of these glades, which is somewhat similar to the "bottom" land of river shores, there are several varieties of up-land, named from their sub-soils, lime stone, slate, &c. These soils are rather thin, heavy, tenacious and often clayey, but yield abundantly to suitable culture, producing corn, wheat, rye, oats, buckwheat and potatoes.

The average price of bottom land is $30 per acre; up-land from $5 to $15 per acre; wood land, (not timber land,) at the same price. There are no lands in the county worn out by injudicious cultivation, though the farming is generally unskillful, and the aggregate product is not flattering. The county in regard to agriculture is new, and presents to the emigrant farmer greater promise than the far distant western prairies. The agricultural products of the county are not sufficient for local consumption. The demand for flour, bacon and all kinds of edibles is greater than the supply, furnishing a home market to the farmer, among the miners, teamsters, mechanics and trades people, at prices equal to those obtained in Baltimore. To these considerations should be added the abundance of wood and coal of the finest quality, and a climate unrivalled for health and beauty of scenery.

Farms vary in size from 50 to 1000 acres, and there are large tracts of unimproved land, much of which is owned by non-residents, and could be purshased at reasonable rates.

The soil of the coal meadows, though stony in parts is fertile and covered with spontaneous grasses. Apple, plum and cherry trees flourish every where, the grape is beginning to be cultivated, and its success demonstrates the feasibility of covering the hill sides with vines, which will yield the choicest wines. But the demand for labor in the region of the coal and iron beds has absorbed the working population to such an extent, that there is not a nursery and scarcely a market garden in the county, while the bacon from Cincinnatti, and the grains and vegetables of Baltimore city markets, and the fruits of the lower counties supply the wants which the deficiency in agricultural products occasions.

In the smaller manufactures the same deficiency is observed. Though the water power is unlimited, and timbers of oak, hickory, white pine, yellow pine, hemlock, ash, poplar, black walnut and cherry are in great abundance, there is not

a spoke, a hub, an axe or broom handle or even a washboard manufactured for sale in the county.

The brooks which intersect the glades abound in the finest trout, affording excellent sport, and a pleasant variety of food. Some years since perch were introduced in the rivers, and they are now fully stocked.

The local roads of the county, (coal roads,) are in fine order, and are used not only for the convenience of neighborhoods, but for general freight throughout the county.

The water power of this county is immense, but unimproved. Fuel is so cheap that steam power is preferred.

Limestone, and red and white sandstones of excellent quality for building purposes, are plentiful. The paving stone of this county is superior to any yet used in New York, but owing to cost of transportation has only been tried in Cumberland.

The supply of cement limestone seems inexhaustible, and as the water cement made from it has been every where pronounced the finest known, capital and enterprise alone are needed to extend its manufacture. It is now ground by a steam mill at Cumberland.

Fire bricks are manufactured at the Mount Savage works, in immense quantities, but not enough to supply the demand. The fire clay from which they are made, is of superior quality and unlimited amount.

The iron ores of Allegany are of several varieties, and are intermingled in the strata of the coal fields. It is in a strata 200 feet below the main coal that the *"black band"* of iron ore is found. This ore, so much prized in England, here rests on a strata of coal which is thick enough to roast it, thereby lessening the expense of reducing it to a merchantable form. None of the smelted iron is sent abroad, but is manufactured into railroad iron on the spot, to an amount on an average of 200 tons per week. That singular formation of carbonate of iron called *balls* or nodules by the miners, is found and mined here. It is located in beds of shale or fire clay. These ores are worked in the valleys of the Cumberland coal fields. The western part of the county being little known or improved, though specimens of rich ores have been obtained in the un-opened coal fields.

The coal mines of Allegany county deserve a much fuller notice than can be given of them here, both from their benefit to the nation at large, and the important part they bear in the "Resources of Maryland."

The capital invested in mines in this county is not less $7,000,000. The extent of railroad builded and owned by

these coal companies for the purpose of connecting their respective mines with the common means of transportation exceeds 100 miles. The amount of coal annually exported to the seaboard and other markets, is from 800,000 to 1,000,000 tons. This could be increased one-half if adequate facilities of transportation were afforded.

The region from which the coal is mined lies between Davis mountain on the east and Savage mountain on the west, and is twenty miles long with an average breadth of four and a half miles. George's creek runs through this tract and its name is sometimes given to the coal mined there. The available quantity of coal contained in this single valley, after making the usual deductions for waste and loss is estimated at 4,000,000,000 tons.

Experience has demonstrated the very great merit of this coal. It is bituminous, burns readily with a clear bright flame and leaves but little ashes. It is especially adapted to the purposes of the blacksmith, giving a quick fire with intense heat. It is the best coal in use for producing steam, and the supplies which will be needed for ocean steamers, for locomotives and steam machine shops throughout our seaboard, must increase year by year.

Besides the coal field of the valley of the George's creek there are two other coal fields known by the names of the Youghiogany and Meadow Mountain coal fields. The first embracing an area of 250 and the last of 150 square miles. The coal of these fields has been ascertained to partake of the same general characteristics as the Cumberland coal, but it has been little explored and only opened for local uses. These coal fields will probably remain unimproved until capital is more abundant and the population more dense, so that the expense of making roads and railroads will be shared by a public to whom it is a benefit.

Unsatisfactory means of transportation has been the great obstacle with which the proprietors of the various mines of Allegany county have been obliged to contend. Confined to the Chesapeake and Ohio Canal and the Baltimore and Ohio Railroad, and these works being constantly threatened and repeatedly broken, the boats upon the one and the rolling stock of the other often destroyed; the wealth of Allegany for the last four years has had but a precarious outlet; but it cannot be long restrained. Either, safe transportation with cars and boats sufficient for forwarding the products of the mines, must be furnished, so that a market may be reached through these avenues, or they will soon make themselves a channel northward and reach their market over the great lines of the Pennsylvania roads.

Doubtless the agricultural and manufacturing interests of this county will always be subordinate to the mining interests,

but it is true at the same time that the mining operations will always afford the manufacturer a market for his wares at the door of his factory, and the farmer and gardener a market for their products without cost of transportation. They may thus realize better prices and at less expense than they could do if they were compelled to seek a market in distant cities.

CONCLUSION.

The foregoing sketch, designed to be a strictly accurate statement of the Resources of Maryland, may give the inquirer for a home some conception of what awaits him should he turn his steps hitherward.

He comes not to the loneliness and privations of frontier settlements which make the life of the "backwoodsman" always a life of hardship; not to a land that has no past and but an uncertain future; not to a land of unknown resources and distant markets and onerous taxes, but he comes to a land at once old and new. Society is organized and law established. The waters are explored and railroads are built, the resources are developed but they are not exhausted, and the Constitution secures self-government and free public institutions, and in obliterating the long mistakes of the past, it wisely denies even the Legislature the power of fastening upon the future the burden of compensation for the errors which it removed.

He comes to a Free State, which most earnestly welcomes every worthy and industrious immigrant. And he comes not only to share her present prosperity and her future honors, but to be a participant also in her priceless memories of the past.

Possessing within herself as many of the elements of wealth and material greatness as can anywhere be found in the same extent of territory, she delights at the same time to remember that she was the first to throw the mantle of religious toleration—as broad as the mantle of charity itself—over dissentient denominations and to persuade Catholic and Puritan and Quaker, living together in peace, to call it "the land of the Sanctuary," that she generously gave and continued to give her aid, (after Virginia and the National Government had withdrawn theirs,) to carry on the great works of internal improvement in which all were interested; and that she first, working out in her own heart the great problem of the times, without "compensation" or extraneous influence, struck the bonds from eighty-five thousand slaves and made all her people *Free*.

She points too with pride, though in sadness, to the spots made sacred by the choicest blood of her sons,—North Point, South Mountain, Antietam and the Monocacy,—and treasures in her heart of hearts the memories of those of her sons whose valor has shone conspicuous on all the great battle fields of the Republic.

REPORT.

The Select committee appointed under an order of the House to prepare or have prepared a succinct statement of the Resources of Maryland, &c., beg leave to report, that they were assisted in the prosecution of their labors by Henry Stockbridge, Esq., who possessed superior facilities from a recent correspondence with gentlemen throughout every section of the State on the subject your committee was called upon to consider. The statement prepared by Mr. Stockbridge is herewith submitted.

To carry out the design evidently intended by the Governor in his last message, and adopting the language of the order under which the committee have been acting, the committee would recommend that a large number of copies of the statement be printed in English and German, for general distribution through those sections of country where such information will be most acceptable and might be circulated with most profit to this State.

We therefore recommend the adoption of the following order:

Ordered, That 10,000 copies of the accompanying statement be printed, 2,000 of which shall be in the German language; and that the Clerk of this House, after sending five copies to each member of the General Assembly, shall distribute the balance throughout the Northern, Eastern and Western sections of the United States;

That Henry Stockbridge be allowed four hundred dollars for his services in preparing the accompanying statement, and

John McGarrigle be paid the sum of one hundred dollars for his services as Clerk to the committee; the amounts appropriated and expenses incurred in said distribution to be paid by the Treasurer, on the warrant of the Comptroller, out of the fund appropriated for this purpose.

JOSEPH HARRIS, *Chairman*,
E. F. ANDERSON,
CHAS. B. CALVERT,
UPTON BUHRMAN.

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